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Letter to the Editor

A meta-analysis examining the use of tacker fixation versus no-fixation of mesh in laparoscopic inguinal hernia repair

Dear Editor,

We read with much interest the informative meta-analysis by Sajid et al.[1] on the topic of using tacker fixation versus no-fixation of mesh in laparoscopic inguinal hernia repair. The authors conclude that "non-mesh-fixation in laparoscopic inguinal hernia repair does not increase the risk of hernia recurrence. It is comparable with tacker-mesh fixation in terms of operation time, postoperative pain, postoperative complications, length of hospital stay and chronic groin pain. Therefore, based upon the results of this review non-mesh-fixation approach may be adopted routinely and safely in laparoscopic inguinal hernia repair".[1]

Do the findings of that meta-analysis reflect everyday routine surgical practices? In the German-speaking countries 21,974 hernia repair operations were registered on a voluntary basis between 09/2009–03/2012 in the hernia register Herniamed. During that period, 5278 hernia repair operations were conducted using a TEP technique and 10,182 by means of a TAPP technique. For the TEP technique surgeons dispensed with fixation in 93.6% of cases, whereas for the TAPP technique they did so only in 32.9% of cases. In 67.1% of cases they apparently believed it was necessary to fix the mesh with sutures (11.4%), tacks (34.6%), glue (19.6%) or using a combination of these techniques (0.6%).

The meta-analysis by Tam et al.[2] and Teng et al.[3] clearly demonstrates for TEP that in general there is no need for fixation with this technique. In the present meta-analysis by Sajid et al.,[1] the TEP technique was used in seven out of eight prospective randomized trials. Only the study by Smith et al.[4] with 502 cases is based on the TAPP technique. For the TAPP technique there are not a sufficient number of prospective randomized studies available to permit a qualified meta-analysis.

In the "Guidelines for laparoscopic (TAPP) and endoscopic (TEP) treatment of inguinal Hernia" of the International Endohernia Society (5) it is stated that "only one study with a 1b evidence level compared fixation versus nonfixation in TAPP repair and found no significant differences in the incidence of recurrence between fixated and nonfixated repairs. However, the majority of hernia defects in this trial were smaller than 3 cm".[5] The Guidelines recommend, if TAPP or TEP techniques are used, nonfixation could be considered in types LI, II and MI, II hernias (European Hernia Society Classification). For big direct and indirect defects (LIII, MIII) (EHS-Classification) the mesh should be fixated.[5]

The authors of the present meta-analysis themselves acknowledge the limitations of the power of their investigations since in their opinion the quality of the studies included is only moderate or average. There is a lack of studies with a high degree of evidence to justify that mesh fixation can always be omitted. They therefore recommend that mesh fixation be dispensed with in selected cases.

In future studies classification of hernias, for example as per that of the European Hernia Society (EHS), must definitely be taken account of in order to establish whether mesh fixation can be omitted also in risk groups with large hernias (LIII, MIII). Separate analysis of the TEP and TAPP techniques also appears to be advisable.

Conflicts of interest

The authors F. Köckerling, D.A. Jacob, P. Chowbey, and D. Lomento have no conflict of interest.

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